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Appendix F

Support for Claims 202, 203 and 206 in the Instant ('191) Application

Disclosures:

Serial No.	Filing Date	Application family
09/265,191	3/10/99	CON of 08/593,554
08/593,554	1/30/96	CIP of 08/446,691

As the instant application is a continuation of the '554 application, support from the '554 is not detailed below. A pagination difference between the '191 and the '554 applications results in the page and line citations in the two applications being slightly different. The two applications contain the same content.

Claim #	Claim Limitation	Support in Applicants' Disclosure
202.	A composition comprising: a plasmid including an immunostimulatory nucleic acid sequence...	Page 5, lines 16-18: “The naked gene expression vectors of the invention include one or more non-coding, immunostimulatory polynucleotides which include at least one dinucleotide sequence consisting of adjacent, unmethylated cytosine-guanine (CG) nucleotides.” Page 42, line 1, to page 50, line 5: Examples I-VI: Administration of expression vectors encoding antigens resulted in induction of both antigen-specific CTLs and anti-antigen antibodies (NP and β gal antigens: Examples I-III). Vaccination of mice with an expression vector (pCMVRNP) protected animals from a lethal challenge of influenza virus (Example IV). Administration of an expression vector encoding lacZ resulted in generation of anti- β gal antibodies, in particular, Th1 antibodies (IgG2a) whereas administration of β gal protein resulted in Th2 antibodies (IgG1) (Examples V-VI).

Claim #	Claim Limitation	Support in Applicants' Disclosure
	...comprising AACGTT, wherein C is unmethylated, ...	<p>Page 11, lines 15-21:</p> <p>“Exemplary immunostimulatory polynucleotides of the invention include: Single-stranded DNA: AACGTT (SEQ.ID.No.1) Double-stranded (palindromic) DNA: AACGTT (SEQ.ID.No.2) TTGCAA</p> <p>If an immunostimulatory polynucleotide such as the one described above is absent from a recombinant gene expression vector, little humoral or cellular immune response to an expressed antigen is stimulated even where levels of antigen expression is increased.”</p> <p>Page 44, lines 15-18:</p> <p>“To determine the effect of the immunostimulatory polynucleotides of the invention on humoral immune responses, the pKCB-LacZ plasmid was modified to include one or two copies of the AACGTT polynucleotide palindrome found in the AmpR gene (pKCB-laaZ [1 copy] and pKCB-2aaZ [2 copies]).”</p>
	...and an antigen in a pharmaceutically acceptable carrier, wherein the antigen is encoded in the plasmid.	<p>Page 6, lines 18-21:</p> <p>“With co-administration of antigen or a recombinant expression vector encoding antigen, the naked gene expression vectors of the invention serve as adjuvants to enhance the immune response of a host to the antigen.”</p> <p>Page 37, lines 4-6:</p> <p>“The naked gene expression vectors of the invention ... may be used in gene immunization protocols; i.e., where the target antigen is a protein antigen encoded by a naked gene expression vector ... ”</p> <p>Page 29, lines 16-17:</p> <p>“Compositions of recombinant gene expression vectors may be placed into a pharmaceutically acceptable suspension, solution or emulsion.”</p>
203.	The composition of claim 202, wherein the plasmid is pREP7 encoding an antigen.	<p>Page 26, lines 5-6:</p> <p>“Other preferred plasmid vectors are pREP7 and pREV which are commercially available from Invitrogen of San Diego, California.”</p>

Claim #	Claim Limitation	Support in Applicants' Disclosure
206.	A pharmaceutical composition for stimulating an immune response to an antigen,...	<p>Page 4, lines 7-11:</p> <p>“The naked gene expression vectors of the invention include immunostimulatory polynucleotides which elicit a vigorous cell-mediated immune response. The invention also includes naked gene expression vectors for use in manipulating cellular immune responses toward the TH1 compartment.”</p> <p>Page 42, line 1, to page 50, line 5: Examples I-VI:</p> <p>Administration of expression vectors encoding antigens resulted in induction of both antigen-specific CTLs and anti-antigen antibodies (NP and βgal antigens: Examples I-III). Vaccination of mice with an expression vector (pCMVRNP) protected animals from a lethal challenge of influenza virus (Example IV). Administration of an expression vector encoding lacZ resulted in generation of anti-βgal antibodies, in particular, Th1 antibodies (IgG2a) whereas administration of βgal protein resulted in Th2 antibodies (IgG1) (Examples V-VI).</p> <p>Page 29, lines 16-17:</p> <p>“Compositions of recombinant gene expression vectors may be placed into a pharmaceutically acceptable suspension, solution or emulsion.”</p>
	...comprising pREP7 encoding the antigen and a pharmaceutically acceptable carrier.	<p>Page 26, lines 5-6:</p> <p>“Other preferred plasmid vectors are pREP7 and pREV which are commercially available from Invitrogen of San Diego, California.”</p> <p>Page 29, lines 16-17:</p> <p>“Compositions of recombinant gene expression vectors may be placed into a pharmaceutically acceptable suspension, solution or emulsion.”</p>